

REMARKS

This amendment is submitted after final rejection under 37 CFR 1.116 because Applicants believe that all claims now presented are in condition for allowance. In any event, the claims now presented are in better form for appeal. Applicants have raised no new issues and inserted no new matter into the application. Furthermore the Applicants have presented arguments in this application that are directly responsive to points raised by the Examiner in the last office action, and Applicants could not have filed their response at an earlier date.

Applicants wish to thank Examiners Hurt and Campell for granting a telephone interview with Applicants' undersigned representative. The telephonic interview took place on 30 August 2007. The Examiners have already prepared an Interview Summary Record and Applicants have attached a copy of same to this amendment.

During the telephone interview the Examiners made it clear that claim 12 was the only claim currently in the case directed to allowable subject matter. The Examiners made it clear that they will not allow any claim that defines the poxvirus any more broadly than MVA-BN poxvirus as deposited at the European Collection of Animal Cell Cultures (ECACC) under No. V00083008, and so the claims will have to be limited to MVA-BN as deposited at the

European Collection of Animal Cell Cultures (ECACC) under No. V00083008 comprising at least two foreign genes which are homologous in comparison to each other, wherein each of said genes is inserted into a different insertion site of the viral genome, as well as to pharmaceutical compositions and vaccines containing same, methods of immunization employing same, methods for detecting same in a biological sample, and processes for preparing same.

The Examiners particularly referred to the paragraph bridging pp 3 and 4 of the final office action mailed 30 May 2007 and emphasized that in their opinion with the exception of the deposited MVA-BN, whose genome is as set forth in Figures 1 and 18 with specified insertion sites, and specified distances between the insertion sites of several hundred base pairs, Applicants have no other specific antecedent basis in the application to patentably distinguish the broadly defined recombinant poxviruses comprising at least two foreign genes which are homologous in comparison to each other, wherein each of said genes is inserted into a different insertion site of the viral genome over the disclosure in PAOLETTI et al which discloses recombinant poxviruses containing two or more inserted foreign genes, including Flavivirus genes such as from Dengue virus.

The Examiners agreed that the PAOLETTI et al reference discloses insertion of two or more foreign genes into adjacent sites in the poxviral genome as set forth in Figure 4 of the reference, where the two or more inserted foreign genes abut one another, and that Applicants clearly disclose inserting their two or more foreign genes at different, non-adjacent sites, and so prior art does not disclose the identical invention. However, the Examiners maintained that merely one base pair between the two insertion sites in the Applicants' present invention would not be precluded, and that recombinant poxviruses that encompass such insertions only one base pair apart do not patentably distinguish over PAOLETTI et al.

The Examiners specifically indicated that the subject matter of claim 12, last presented, would be patentably distinguishable over PAOLETTI et al and the other cited prior art because of the specified, significant differences in the insertion sites provided for the two or more foreign genes.

Applicants do not necessarily agree with the Examiner's conclusion that the claims as last presented are not patentable over PAOLETTI et al. Applicants point out that the PAOLETTI et al discloses insertion of two or more foreign genes with little or no homology in sharp distinction to the presently claimed invention. Furthermore when the Applicants' examples are considered, it is


seen that the present invention employs a separate individual promoter, such as promoter p7.5 for controlling each individual inserted gene. According to PAOLETTI et al when the two or more foreign genes are inserted into an adjacent location in the poxvirus, the two or more foreign genes are under the control of the same promoter. Nonetheless in order to obtain allowance of at least one important feature of the presently disclosed invention, Applicants have limited the recombinant poxvirus in all claims now presented to MVA-BN as deposited at the European Collection of Animal Cell Cultures (ECACC) under No. V00083008 comprising at least two foreign genes which are homologous in comparison to each other, wherein each of said genes is inserted into a different insertion site of the MVA-BN poxviral genome.

Applicants expressly reserve the right to file a continuation, divisional or continuation-in-part application to cover subject matter that is disclosed in the application, but not within the scope of any allowed claim.

Should the Examiner believe that any further changes in the claims now presented are required before the application can be placed in condition for allowance, she is asked to telephone the undersigned attorney to inform him of same.

Applicants believe that all claims now presented are in condition for allowance and a response to that effect is earnestly solicited. Applicants note that there are ten independent claims now in this application. Applicants are enclosing PTO 2038 to authorize payment of the additional fee for the seven excess independent claims to the credit card of the Undersigned Attorneys. Applicants are also enclosing a petition to obtain a one month extension of the terms for response and a PTO 2038 to authorizing charging this fee as well to cover the cost of obtaining the one month extension (large entity) of the term for response.

Respectfully submitted,
K.F. Ross P.C.

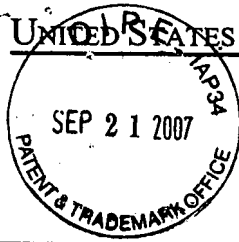

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18 September 2007
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Enclosures: Request for extension (one month)
PTO-2038
PTO-2038 for 7 extra independent claims
Examiner's Interview Summary Record



UNITED STATES PATENT AND TRADEMARK OFFICE



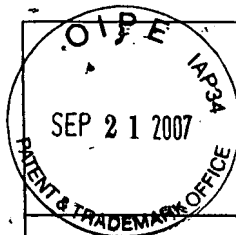
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------------------------------------------------|-------------|----------------------|----------------------------|------------------------|
| 10/510,189 | 09/30/2004 | Paul Howley | 22996 | 7534 |
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| | | | EXAMINER HURT, SHARON L | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

KARL F. ROSS
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SEP 12 2007
N. Y. N. Y.



Interview Summary

Application No.

10/510,189

Applicant(s)

HOWLEY ET AL.

Examiner

Sharon Hurt

Art Unit

1648

All participants (applicant, applicant's representative, PTO personnel):

(1) Sharon Hurt.

(3) Jonathan Myers.

(2) Bruce Campbell.

(4) _____.

Date of Interview: 30 August 2007.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 1, 22 and 34.

Identification of prior art discussed: Paoletti et al.

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Proposed claim amendments were discussed. Prior art reference Paoletti et al. was discussed in detail. Applicant's specification was discussed as it relates to the claims and proposed claim amendments. Possible allowable subject matter was discussed. Future plans for possibly filing a CIP were discussed. No agreement was reached.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.